

0547062-129904460

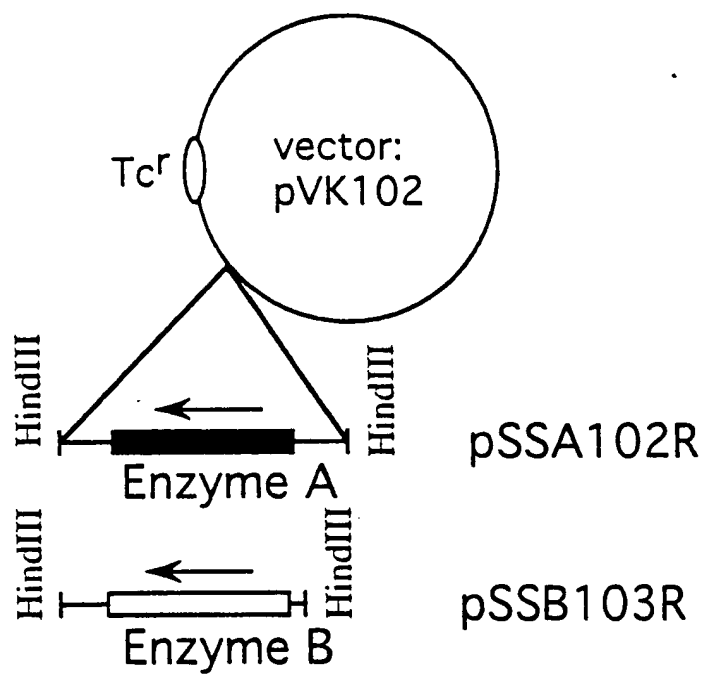


Fig. 1.

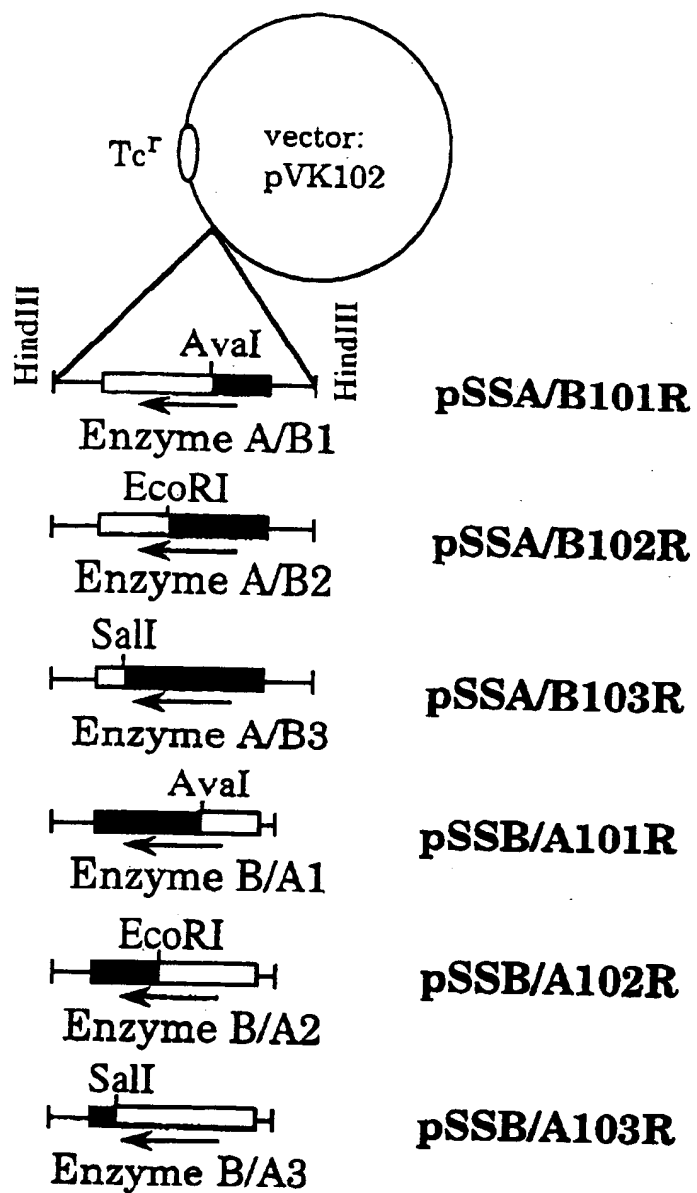
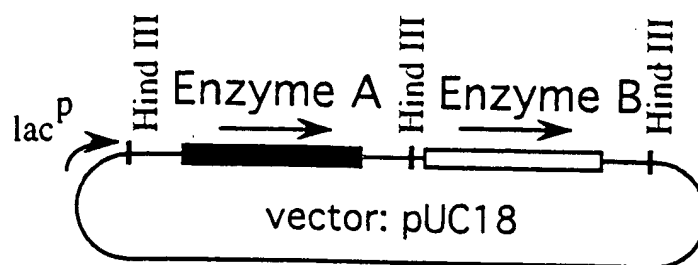


Fig. 2.

pSSAB201



pSSBA201

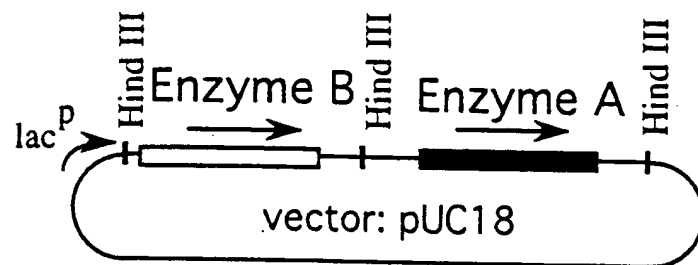


Fig. 3.



- what
g.
rejection

Fig. 4.

Enzyme A 1 : QVTPVTDELL ANPPAGEWIS YGQNQENYRH SPLTQITTEN VGQLQLVWAR GMQPGKVQVT
 Enzyme B 1 : QVTPITDELL ANPPAGEWIN YGRNQENYRH SPLTQITADN VGQLQLVWAR GMEAGAVQVT

61 : PLIHDGVMYL ANPGDVIQAI DAKTGDLINE HRRQLPNIAT LNSFGEPTRG MALYGTNVYF
 61 : PMIHDGVMYL ANPGDVIQAL DAQTGDLINE HRRQLPAVAT LNAQGDRKRG VALYGTSLYF

121 : VSWDNHLVAL DTATGQVTFD VDRGQGED-M VSNSSGPIVA NGVIVAGSTC QYSPFGCFVS
 121 : SSWDNHLIAL DMETGQVVFD VERGSGEDGL TSNTTGPIVA NGVIVAGSTC QYSPYGCFFS

180 : GHDSATGEEL WRNYFIPRAG EEGDETWGND YEARWMTGAW GQITYDPVTN LVHYGSTAVG
 181 : GHDSATGEEL WRNHFIQPG EEGDETWGND FEARWMTGVW GQITYDPVTN LVFYGSTGVG

240 : PASETQRGTP GGTLYGTNTR FAVRPDTGEI VWRHQTLPRD NWDQECTFEM MVTNVDVQPS
 241 : PASETQRGTP GGTLYGTNTR FAVRPDTGEI VWRHQTLPRD NWDQECTFEM MVANVDVQPS

EcoRI

300 : TEMEGLQSIN PNAATGERRV LTGVPCKTGT MWQFDAETGE FLWARDTNYQ NMIESIDENG
 301 : AEMEGLRAIN PNAATGERRV LTGAPCKTGT MWSFDAASGE FLWARDTNYT NMIASIDETG

360 : IVTVNEDAIL KELDVEYDVC PTFLLGGRDWP SAALNPDSGI YFIPLNNVCY DMMAVDQEFT
 361 : LVTVNEDAVL KELDVEYDVC PTFLLGGRDWS SAALNPDTGI YFLPLNNACY DIMAVDQEFS

Sall

420 : SMDVYNTSNV TKLPPGKDMI GRIDAIDIST GRTLWSVERA AANYSPVLST GGGVLFNGGT
 421 : ALDVYNTSAT AKLAPGFENM GRIDAIDIST GRTLWSAERP AANYSPVLST AGGVVFNGGT

480 : DRYFRALSQE TGETLWQTRL ATVASGQAIS YEVDGMQYVA IAGGGVSYGS GLNSALAGER
 481 : DRYFRALSQE TGETLWQARL ATVATGQAIS YELDGVQYIA IGAGGLTYGT QLNAPLA-EA

540 : VDSTAIGNAV YVFALPQ
 540 : IDSTSVGNAI YVFALPQ

* : Nucleotide sequences encoding these regions are the restriction sites for Aval, EcoRI, and Sall which were used for constructing chimera genes shown in Fig. 2.

Fig. 5.

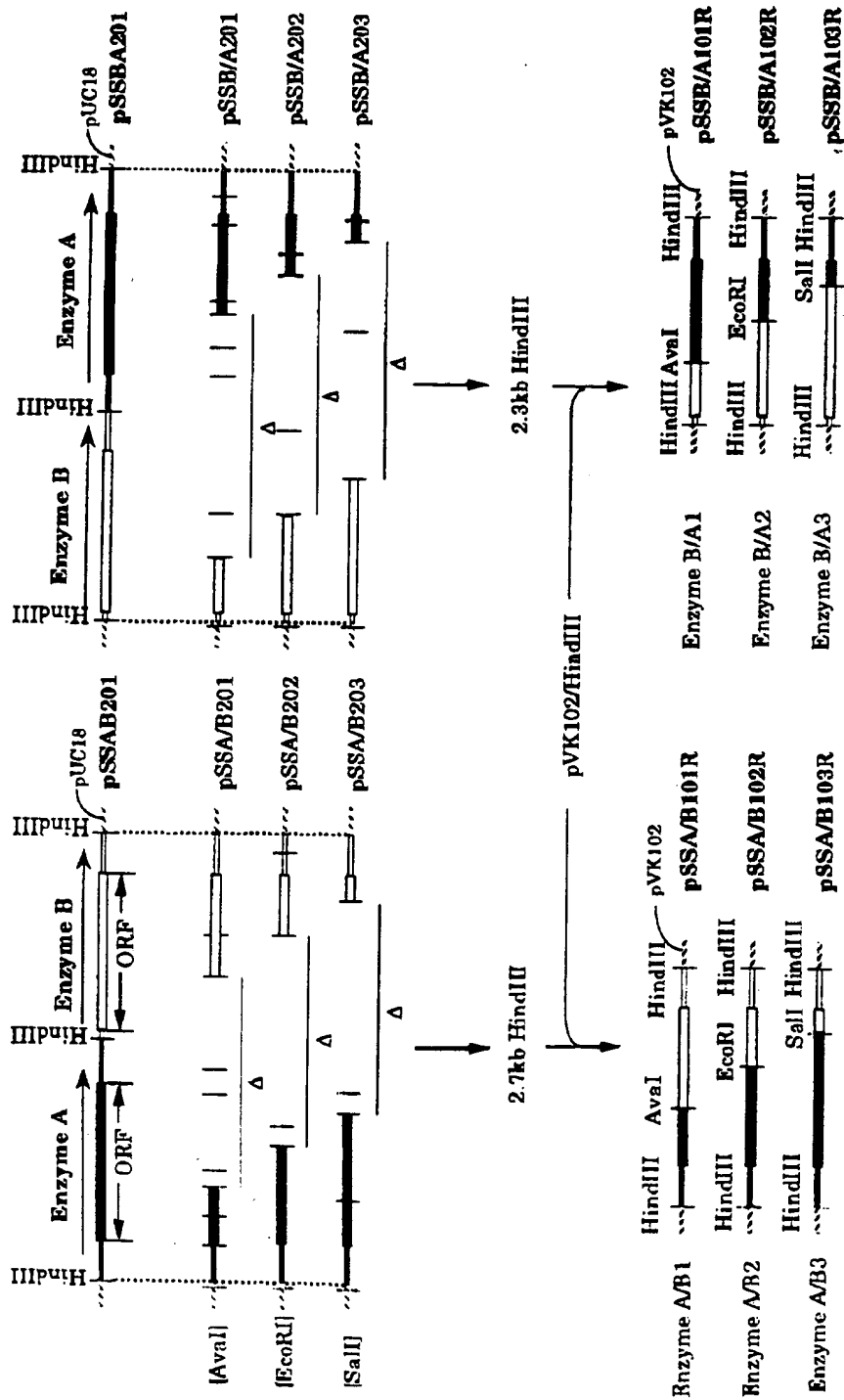
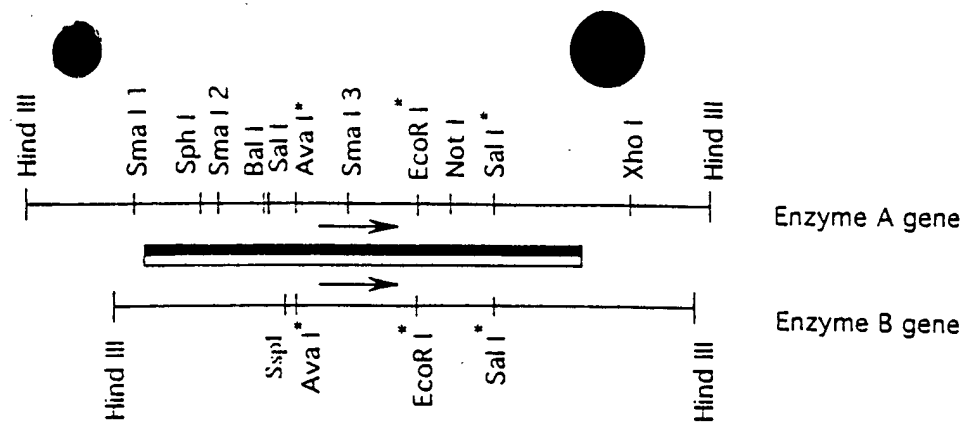


Fig. 6.



*: Aval, EcoRI, Sall sites used for constructing chimera genes shown in Figs. 2 and 6.

Fig. 7.

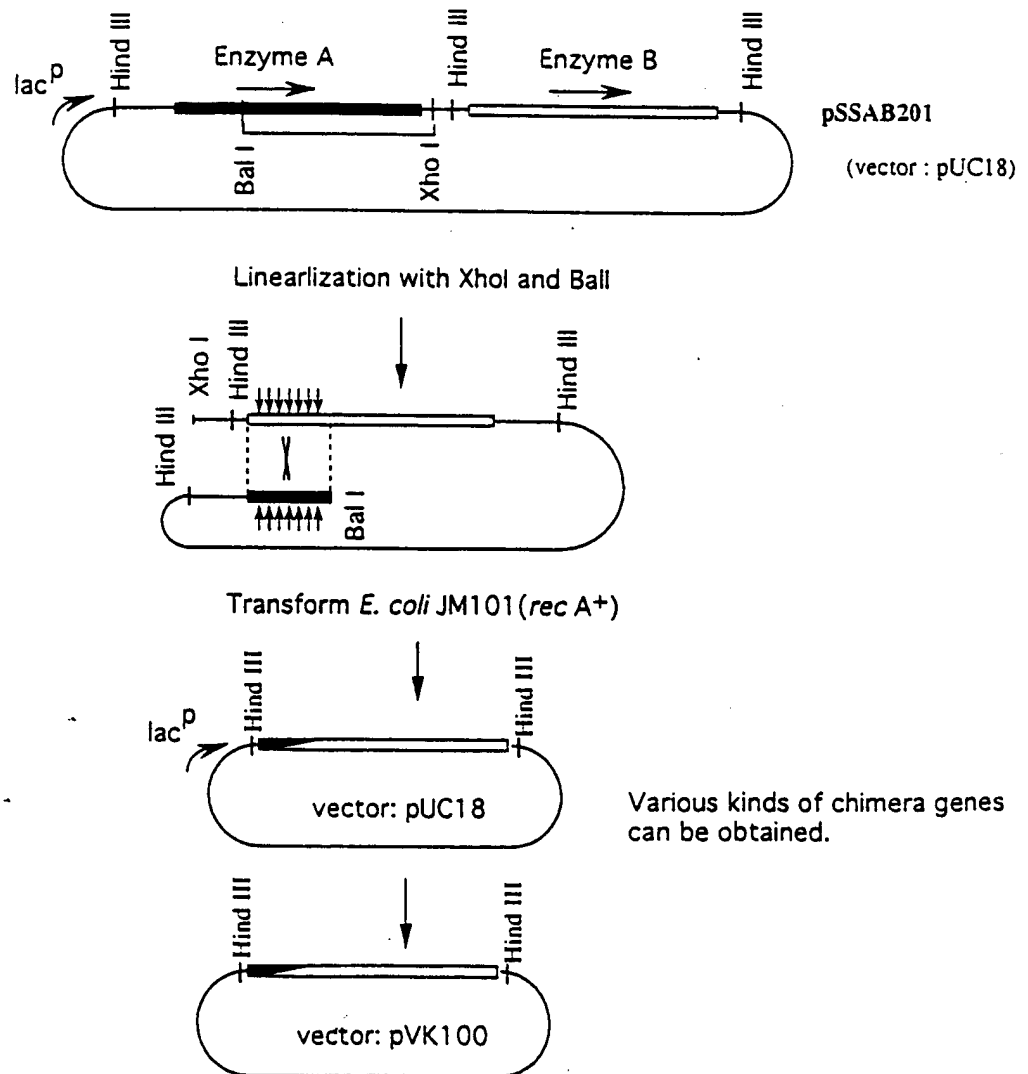


Fig. 8.

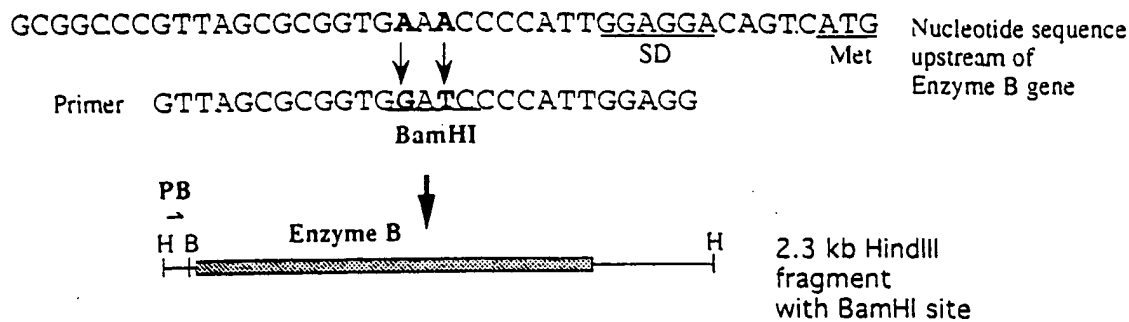


Fig. 9.

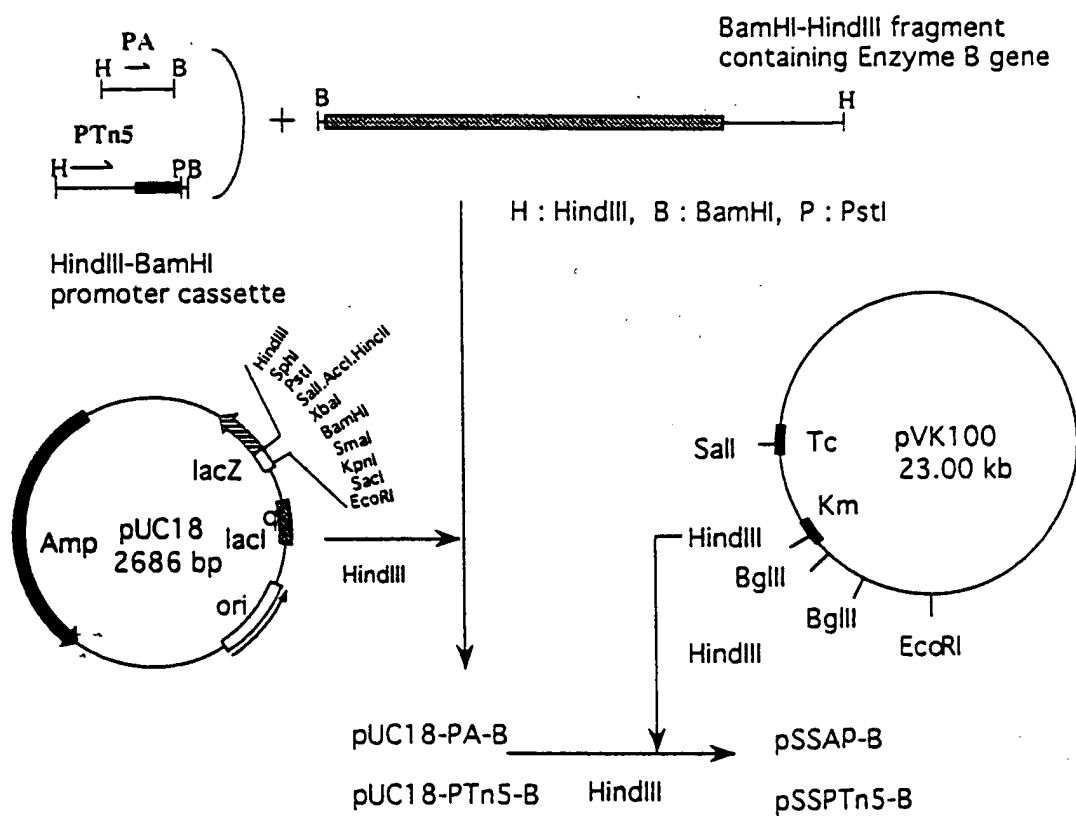
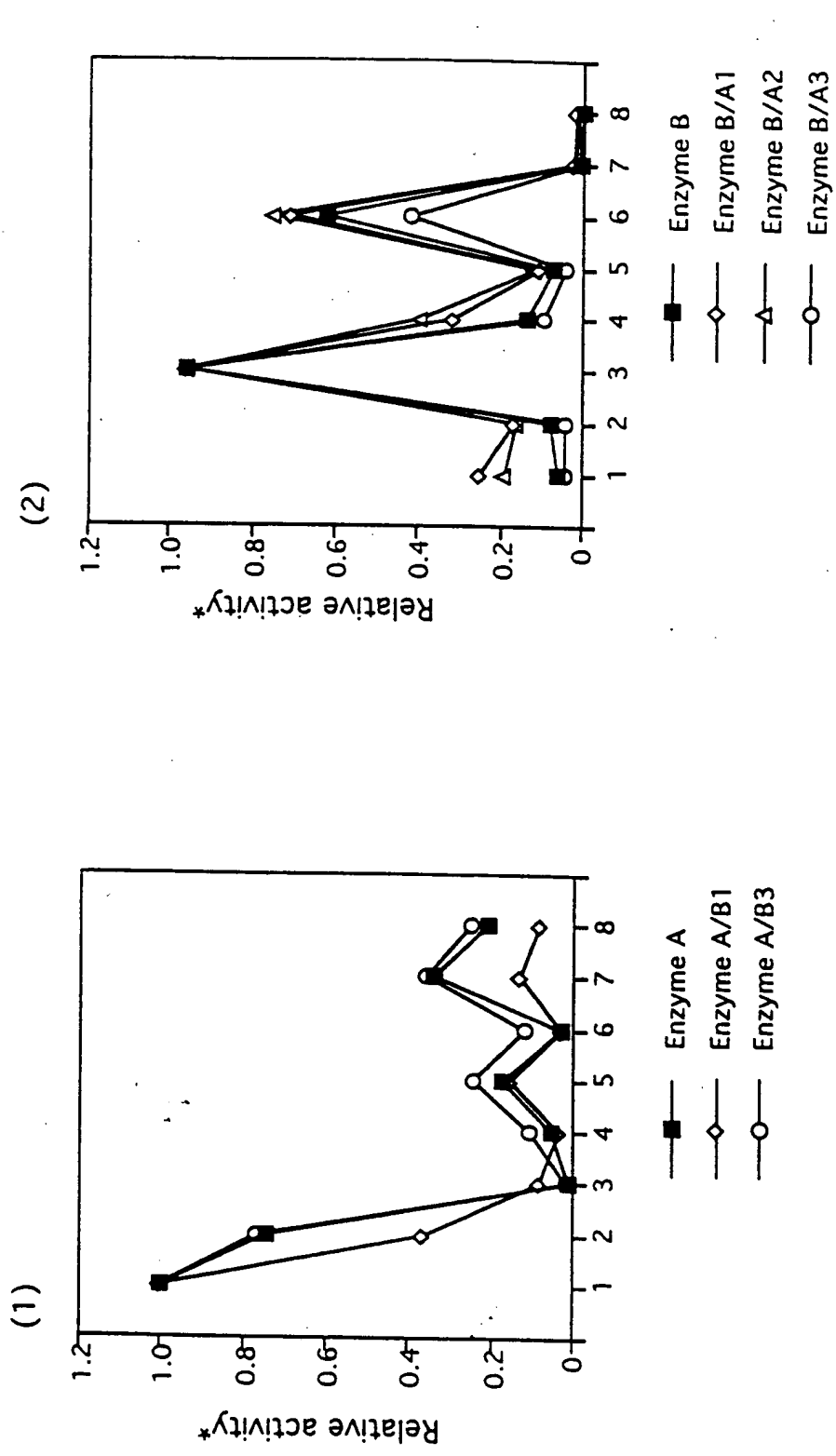


Fig. 10.



1. n-Propanol, 2. Isopropanol, 3. D-Glucose, 4. L-Sorbose
5. D-Sorbitol, 6. D-Mannitol, 7. L-Sorbose, 8. D-Fructose

*Enzyme activity was normalized relative to activity for n-propanol (1), or D-glucose (2). Enzyme A/B2 was excepted because of its low expression in *P. putida*.

Fig. 11.